AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An antifibrillogenic agent for inhibiting amyloidosis and/or for cytoprotection, which comprises a peptide of Formula I consisting of all [D]-amino acids, or a retro-isomer of a peptide of Formula I consisting of all [D]-amino acids an isomer thereof, a retro or a retro-inverso isomer thereof or a peptidomimetic thereof:

Xaa₁-Xaa₂-Xaa₃-Xaa₄

(Formula I)

wherein,

Xaa₁ is selected from the group consisting of Lys and Xaa₅-Lys-;

Xaa₅ is selected from the group consisting of Lys, His-Gln-, His-His-Gln-,

Val-His-His-Gln-, Glu-Val-His-His-Gln-, Asp-Asp-Asp-, and Gln-;

Xaa2 is any amino acid;

Xaa₃ is Val; and

Xaa4 is selected from the group consisting of Phe, Phe-NH2, Phe-Phe, Phe-Phe-NH2,

Phe-Phe-Ala, Phe-Phe-Ala-NH₂, Phe-Phe-Ala-Gln, and Phe-Phe-Ala-Gln-NH₂;

-wherein said peptide has at least one [D] amino acid residue,

with the proviso that Lys-Lys-Leu-Val-Phe-Phe-Ala is an all-[D] peptide.

- 2. (Original) The antifibrillogenic agent of claim 1, wherein Xaa₂ is a hydrophobic amino acid residue.
- 3. (Currently Amended) The antifibrillogenic agent of claim 1, wherein the peptide of formula I has at least two [D] Xaa₂ is an amino acid residue selected from the group consisting of Leu, Ile, Ala, Val, and Phe residues.

4 and 5. (Canceled).

6. (Currently Amended) The antifibrillogenic agent of claim 1, wherein said retro-isomer is selected from the group consisting of: the peptide of formula I is an all-[D] isomer peptide

Ala-Phe-Phe-Val-Leu-Lys (SEQ ID NO:5); and

7. (Currently Amended) The antifibrillogenic agent of claim 1, wherein said peptide of Formula I is selected from the group consisting of:

Lys-Ile-Val-Phe-Phe-Ala	(SEQ ID NO:1);
Lys-Lys-Leu-Val-Phe-Phe-Ala	(SEQ ID NO:2);
Lys-Leu-Val-Phe-Phe-Ala	(SEQ ID NO:3);
Lys-Phe-Val-Phe-Phe-Ala	(SEQ ID NO:4);
Ala-Phe-Phe-Val-Leu-Lys	——(SEQ ID NO:5);
Lys-Leu-Val-Phe	(SEQ ID NO:6);
Lys-Ala-Val-Phe-Phe-Ala	(SEQ ID NO:7);
Lys-Leu-Val-Phe-Phe	(SEQ ID NO:8);
Lys-Val-Val-Phe-Phe-Ala	(SEQ ID NO:9);
Lys-Ile-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:10);
Lys-Leu-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:11);
Lys-Phe-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:12);
Ala-Phe Phe Val Leu Lys NH ₂	(SEQ ID NO:13);
Lys-Leu-Val-Phe-NH ₂	(SEQ ID NO:14);
Lys-Ala-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:15);
Lys-Leu-Val-Phe-Phe-NH ₂	(SEQ ID NO:16);
Lys-Val-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:17);
Lys-Leu-Val-Phe-Phe-Ala-Gln	(SEQ ID NO:18);
Lys-Leu-Val-Phe-Phe-Ala-Gln-NH ₂	(SEQ ID NO:19);
His-His-Gln-Lys-Leu-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:20);
His His Gln Lys	(SEQ ID NO:23); and
Gln-Lys-Leu-Val-Phe-Phe-NH2	(SEQ ID NO:24).

8. (Currently Amended) The antifibrillogenic agent of claim 1, wherein the peptide of Formula I is a peptide of as set forth in SEQ ID NO:2.

- 9-19. (Canceled).
- 20. (Currently Amended) A composition for the treatment of amyloidosis disorders in a patient, which comprises a therapeutically effective amount of a peptide of Formula I as defined in claim 1 or a retro-isomer thereof, and in association with a pharmaceutically acceptable carrier.
- 21. (Currently Amended) A composition for the treatment of amyloidosis disorders in a patient, which comprises a therapeutically effective amount of an antifibrillogenic agent as defined in claim 1, and in association with a pharmaceutically acceptable carrier.
 - 22-31. (Canceled).
- 32. (Currently Amended) A composition for inhibiting amyloidosis and/or for cytoprotection, which comprises a therapeutically effective amount of a peptide as defined in claim 1 or a retro-isomer thereof, and 31 in association with a pharmaceutically acceptable carrier.
 - 33-36. (Canceled).
- 37. (Currently Amended) The antifibrillogenic agent of claim 1, wherein the peptide of Formula I is a peptide of as set forth in SEQ ID NO:3.
 - 38. (Canceled).
- 39. (New) The composition of claim 20, wherein said amyloidosis disorder is Alzheimer's disease.

- 40. (New) The composition of claim 21, wherein said amyloidosis disorder is Alzheimer's disease.
- 41. (New) An antifibrillogenic agent for inhibiting amyloidosis and/or for cytoprotection, which comprises a peptide having an amino acid sequence selected from the group consisting of:

Lys-Ile-Val-Phe-Phe-Ala	(SEQ ID NO:1);
Lys-Lys-Leu-Val-Phe-Phe-Ala	(SEQ ID NO:2);
Lys-Leu-Val-Phe-Phe-Ala	(SEQ ID NO:3);
Lys-Phe-Val-Phe-Phe-Ala	(SEQ ID NO:4);
Ala-Phe-Phe-Val-Leu-Lys	(SEQ ID NO:5);
Lys-Leu-Val-Phe	(SEQ ID NO:6);
Lys-Ala-Val-Phe-Phe-Ala	(SEQ ID NO:7);
Lys-Leu-Val-Phe-Phe	(SEQ ID NO:8);
Lys-Val-Val-Phe-Phe-Ala	(SEQ ID NO:9);
Lys-Ile-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:10);
Lys-Leu-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:11);
Lys-Phe-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:12);
Ala-Phe-Phe-Val-Leu-Lys-NH ₂	(SEQ ID NO:13);
Lys-Leu-Val-Phe-NH ₂	(SEQ ID NO:14);
Lys-Ala-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:15);
Lys-Leu-Val-Phe-Phe-NH ₂	(SEQ ID NO:16);
Lys-Val-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:17);
Lys-Leu-Val-Phe-Phe-Ala-Gln	(SEQ ID NO:18);
Lys-Leu-Val-Phe-Phe-Ala-Gln-NH ₂	(SEQ ID NO:19);
His-His-Gln-Lys-Leu-Val-Phe-Phe-Ala-NH ₂	(SEQ ID NO:20);
His-His-Gln-Lys	(SEQ ID NO:23); and
Gln-Lys-Leu-Val-Phe-Phe-NH ₂	(SEQ ID NO:24);

wherein said amino acid sequence consists of all [D]-amino acids.

42. (New) An antifibrillogenic agent for inhibiting amyloidosis and/or for cytoprotection, which comprises the sequence of SEQ ID NO:2, wherein said sequence consists of all [D]-amino acids.